

Claims 1, 3, 5 and 8 stand rejected under 35 U.S.C. §103 as allegedly being obvious over Musland-Sipper '759 in view of Simpson '882. Claim 4 is rejected as allegedly being obvious over those patents and further in view of Tu '606. Claim 2 stands rejected as allegedly being obvious over Musland-Sipper and Simpson and further in view of Bateman '756. Claims 6 and 7 stand rejected as allegedly being obvious over Musland-Sipper in view of Ray '322. Finally, Claims 9-39 stand rejected as allegedly being obvious over Ray in view of Simpson and Bateman. These rejections are respectfully traversed.

Applicants' invention as set forth in Claim 1 relates to an apparatus for providing weather information onboard an aircraft, and includes a processor unit which processes weather information after it is received onboard the aircraft from a ground-based source containing a plurality of types of weather information, and a graphical user interface which provides a graphical presentation of the weather information to a user onboard the aircraft. Claim 1 sets forth that the graphical user interface includes a user selectable option that allows the user to request specific weather information for transmission from the ground-based source to the aircraft.

In Claims 6 and 8 of Applicants' invention, an apparatus provides weather information onboard an aircraft, and includes a processor unit and a graphical user interface. Like Claim 1, Claims 6 and 8 recite that the graphical user interface includes a user selectable option that allows the user to request specific weather information for transmission from the ground-based source to the aircraft. In Claim 6, the graphical user interface also provides a plan view of the weather information and the position of the aircraft to a user onboard the aircraft, and includes a user selectable option for centering the plan view on the position of the aircraft, even as the position of the aircraft changes. The graphical user interface in Claim 8 provides a plan

view of the weather information for a selectable altitude to a user onboard the aircraft, and includes a user selectable option for changing the selected altitude.

Claim 9 is directed to a method of providing convection information to an aircraft, and includes the steps of collecting convection information at a centralized data center, providing a specific request from the aircraft for the convection information, and transmitting the convection information from the data center to an aircraft in response to the request.

Remaining independent Claims 14, 19, 24, 28, 32 and 35 relate to a method of providing different types of weather related information to an aircraft. These claims include the step of providing a specific request from the aircraft for the information, and transmitting the information from the centralized data center to the aircraft in response to the request.

In accordance with the claimed invention, the user can request specific information to be transmitted from a ground-based source or a data center to the aircraft. In this way, information received onboard the aircraft can be specifically tailored to suit the user's needs.

As discussed in the previous response of October 1, 2003, Musland-Sipper relates to a system for communicating between an aircraft and a ground control station. A graphical interface is provided as an improved communication system between the aircraft and an air traffic control center (ATC). Conventionally, oral communication systems were used to communicate between the aircraft and the ATC.

In the graphical interface disclosed in Musland-Sipper, a REPORT/REQUEST menu 70, as shown in Figure 7, includes an actuating button 2L to bring up a "REQ WEATHER DEV" page. This allows the operator to request for a "weather deviation" up to a specified distance and in a given direction (see column 4, lines 24-27). It is respectfully submitted that this "request" is not a request for a specific information as recited in Applicants' claimed invention,

as it lacks any details regarding the requested weather deviation. On this point, the Office Action asserts, in paragraph 8 (page 8), that Musland-Sipper discloses buttons 1L through 4L for selection by a user to input specific request weather information for transmission from the ground base, referring to column 4, lines 16-34 and Figure 7. As this section of the patent is read by Applicants, however, actuating button 1L requests a REQ ALT/SPD/DIR information, relating to an operator's request to fly at a specified altitude or speed or to request tracking; actuating button 3L brings up a monitoring page 76, which allows the operator to send a message notifying the ground station that the operator is monitoring a specified ICAO unit on a specified frequency; and actuating button 4L brings up a DEVIATE page 78. It is respectfully submitted that none of these options serve to teach or suggest requesting specific weather information. Moreover, although Musland-Sipper discloses that a main menu may also include other "requests or reports" (column 4, lines 33, 34), there is no teaching or suggestion that such other requests or reports are for specific weather information.

Accordingly, it is respectfully submitted that the Musland-Sipper patent cannot be read to teach or suggest requesting specific weather information, and this deficiency is not remedied by the secondary citations.

The Simpson patent relates to a system for providing weather information along a travel route, and was cited for its teaching of a ground-based source containing a plurality of types of weather information. Accordingly, it is respectfully submitted that, without impermissible hindsight, it would not have been obvious to modify the communication system in Musland-Sipper with the system in Simpson for providing user-selected weather information along a travel route. Therefore, reconsideration and withdrawal of the rejection of Claims 1, 3, 5 and 8 under 35 U.S.C. §103 is respectfully requested.

The Tu patent relates to an apparatus for providing weather information onboard an aircraft, and was cited for its teaching of a graphical user interface with a user selectable option for displaying weather information in cross-sectional view along a route of the aircraft.

The patent to Bateman relates to an aircraft weather information system and was cited for its teaching of providing convection, turbulence, and icing information.

These tertiary citations fail, however, to compensate for the deficiencies in the proposed combination of Musland-Sipper and Simpson as discussed above with respect to Claim 1. Therefore, without conceding the propriety of combining the art in the manner proposed in paragraphs 4 and 5 of the Office Action, it is submitted that such combinations still fail to teach or suggest Applicants' claimed invention. Accordingly, reconsideration and withdrawal of the rejections of Claims 2 and 4 under 35 U.S.C. §103 are respectfully requested.

The Ray patent relates to a cellular weather information system specifically for providing information on thunderstorms. With respect to Claims 6 and 7, this patent was relied upon for its teaching of disclosing a plan view of the weather information and position of the aircraft to an onboard user.

It is submitted, however, that the proposed combination of Musland-Sipper and Ray, even if proper, still fails to teach or suggest, inter alia, a graphical user interface that allows the user to request specific weather information. For the reasons discussed above, Musland-Sipper is not read to allow an operator to request specific weather information.

Accordingly, reconsideration and withdrawal of the rejection of Claims 6 and 7 under 35 U.S.C. §103 is respectfully requested.

With respect to Claims 9-39, the Office Action asserts that Ray is capable of providing a specific request from the aircraft for weather information (see paragraph 8, page 8 of the Office Action). It is respectfully submitted, however, that Ray is understood to disclose that SIGMETS are transmitted automatically to the aircraft, or an aircraft equipped with cellular telephones are called by the ground station (see column 5, lines 55-63) and asked if they want to receive this information. Ray can also provide atmosphere electrical activity information to an aircraft generated by storms or other disturbances "responsive to a service request" (column 2, lines 7-10), but this is not understood to mean a request from the aircraft. Therefore, it is submitted that Ray does not teach or suggest providing a specific request from the aircraft for weather information.

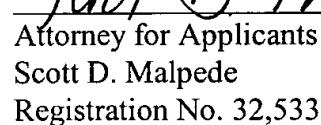
Accordingly, it would not have been obvious to modify Ray to include the weather information provided for by Simpson or the various weather information provided for by Bateman, without the use of impermissible hindsight. Accordingly, reconsideration and withdrawal of the rejection of Claims 9-39 under 35 U.S.C. §103 is respectfully requested.

It is submitted, therefore, that Applicants' invention as set forth in independent Claims 1, 6, 8, 9, 14, 19, 24, 28, 32 and 35 is patentable over the cited art. In addition, dependent Claims 2-5, 7, 10-13, 15-18, 20-23, 25-27, 29-31, 33, 34 and 36-39 set forth additional features of Applicants' invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to Honeywell's address given below.

Respectfully submitted,



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